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EXAMINER	
ALPHONSE, FRITZ	

ART UNIT	PAPER NUMBER
2112	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/578,655	HERRMANN, CHRISTOPH	
	Examiner	Art Unit	
	FRITZ ALPHONSE	2112	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *09 May 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-13* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,4-8 and 10-13* is/are rejected.

7)☒ Claim(s) *2, 3, 9* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This Office Action is in regard to the application filed on 5/09/2006. Claims 1-13 have been presented for examination.

Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Oath/Declaration

3. The Oath/Declaration filed on 5/09/2006 is accepted.

Specification

4. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

5. The spacing of the lines of the specification is such as to make reading difficult. New application papers with lines 1½ or double spaced on good quality paper are required.

Claim Objections

6. Claims 1, 3, 9, 10-13 are objected to because of the following informalities: Claims 1, 10-13 lack a preamble. Claims 1, 3, 9 are not written in active step format. In addition, the claims are not indented properly. Appropriate correction is required.

7. Claims 1-13 are objected to because the lines are crowded too closely together, making reading difficult. Substitute claims with lines one and one-half or double spaced on good quality paper are required. See 37 CFR 1.52(b). Appropriate correction is required.

8. Claims 7, 8 are objected to because of the following informalities: the terms "UMTS, RLC, PDUs" should be spelled out (the first time "UMTS, RLC or PDUs " is used, the actual language that defines the abbreviation should be spelled out). Appropriate correction is required.

Claim Rejections - 35 USC § 112

9. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

10. Claim 4 recites the limitation "the second retransmission protocol" in line 1. There is insufficient antecedent basis for this limitation in the claim.

Claims 5-6 depend from claim 4 and inherently include limitations therein and therefore are rejected as well.

Claim Rejections - 35 USC § 101

11. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 13 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter, specifically, as directed to software per se.

Claim 13 recites "Software program product for performing a transmission of first data packets and second data packets from a transmitting station to a receiving station..." The language claimed subject matter referring to software *per se*, which is not tangibly embodied as required per MPEP § 20106. Applicant (s) is/are advised to amend the claim by specifying the claim being directed to a practical application and producing a tangible result being executable by a general purpose computer in order to correct the indicated deficiencies.

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

13. Claims 1, 10-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Malkamaki (U.S. Pat. No. 7,310,336) in view of Ramanujam (U.S. Pat. No. 6,622,277).

As to claim 1, Malkamaki (fig. 1) discloses a method of transmitting data blocks (corresponding to first and second data packets) from a transmitting station to a receiving station (i.e., sending terminal 11; receiving terminal 12; col. 3, lines 55-64; col. 6, lines 58-64), wherein the first data packets comprise first data (col. 7, lines 33-34; where Malkamaki discloses data block with number n), in particular control instructions (i.e., data blocks are communicated according to media access control layer 11b: Abstract); wherein the second data packets comprise second data (col. 7, lines 33-34; where Malkamaki discloses data block with number

n+32); wherein the first data packets and the second data packets are transmitted from the transmitting station to the receiving station (Fig. 1 block 11 and 12, where Malkamaki shows data packets transmitted from sender (11) and a receiver (12)) in containers (col. 5 lines 12-18, lines 64 through col. 6 line 2; where Malkamaki discloses that packets are encapsulating in MAC data blocks; it is well known in the art that data blocks or packets cannot be transmitted without a container); wherein a first container comprises at least one first data packet (col. 7, lines 33-34; where Malkamaki discloses data block with number n); wherein a second container comprises at least one second data packet (col. 7, lines 33-34; where Malkamaki discloses data block with number n+32), and no first data packet (col. 7, lines 32-34; where Malkamaki discloses to avoid data blocks n and n+32 to be in the same windows)

Malkamaki does not explicitly disclose the first container is provided with a first error coding; wherein the second container is provided with a second error coding; and wherein the first error coding is stronger than the second error coding.

However, in the same field of endeavor, Ramanujam discloses a method and apparatus to perform error correction wherein a first container (i.e., first frame of first blocks) is provided with a first error coding and a second container (i.e., second frame of second blocks) is provided with a second error coding (fig. 5; col. 6, lines 36-49); and wherein the first error coding is stronger than the second error coding (col. 7 lines 38-40, where Ramanujam discloses the first error correcting code is stronger than the second error correcting code).

Therefore, it would have been obvious to a person of ordinary skill in the art, at the time of the invention to modify Malkamaki with the teachings of Ramanujam. Doing so would

increase coding gains in a long-haul communications system using concatenated error-correcting codes in conjunction with a three level decoder (col. 2, lines 35-36-40).

As to claim 10, Malkamaki discloses a communication system for transmitting data blocks (i.e., data packets which include first data packets and second data packets) from a transmitting station (sending terminal 11) to a receiving station (receiving terminal 12; abstract), wherein the first data packets comprise first data (col. 7, lines 33-34; where Malkamaki discloses data block with number n), in particular control instructions (According to Mulkamaki, data blocks are communicated according to media access control layer 11b); wherein the second data packets comprise second data (col. 7, lines 33-34; where Malkamaki discloses data block with number n+32); wherein the first data packets and the second data packets are transmitted from the transmitting station to the receiving station in containers (col. 5 lines 12-18, lines 64 through col. 6 line 2; where Malkamaki discloses that after encapsulating the packets in MAC data blocks, a respective sequence number is assigned to the data blocks and Fig. 1 block 11 and 12, where Malkamaki discloses a sender and a receiver); wherein a first container comprises at least one first data packet (col. 7, lines 33-34; where Malkamaki discloses data block with number n), (i.e., MAC data block) and no first data packet (i.e, blocks are different numbers; col. 7, lines 28-30); wherein a second container comprises at least one second data packet and no first data packet (col. 7, lines 33-34; where Malkamaki discloses data block with number n+32).

Malkamaki does not explicitly disclose the first container is provided with a first error coding; wherein the second container is provided with a second error coding; and wherein the first error coding is stronger than the second error coding.

However, in the same field of endeavor, Ramanujam discloses a concatenated forward error correction decoder wherein a first container (i.e., first frame of first blocks) is provided with a first error coding and a second container (i.e., second frame of second blocks) is provided with a second error coding (fig. 5; col. 6, lines 36-49); and wherein the first error coding is stronger than the second error coding (col. 7 lines 38-40).

Therefore, it would have been obvious to a person of ordinary skill in the art, at the time of the invention to modify Malkamaki with the teachings of Ramanujam. Doing so would increase coding gains in a long-haul communications system using concatenated error-correcting codes in conjunction with a three level decoder (col. 2, lines 35-36-40).

As to claim 11, Malkamaki discloses a transmitting station for transmitting data blocks (i.e., data packets which include first data packets and second data packets) from the transmitting station (sending terminal 11) to a receiving station (receiving terminal 12; abstract), wherein the first data packets comprise first data (col. 7, lines 33-34; where Malkamaki discloses data block with number n), in particular control instructions (according to Mulkamaki, data blocks are communicated according to media access control layer 11b); wherein the second data packets comprise second data (col. 7, lines 33-34; where Malkamaki discloses data block with number n+32); wherein the first data packets and the second data packets are transmitted from the transmitting station to the receiving station in containers (col. 5 lines 12-18, lines 64 through col. 6 line 2; where Malkamaki discloses that after encapsulating the packets in MAC data blocks, a respective sequence number is assigned to the data blocks and Fig. 1 block 11 and 12, where Malkamaki discloses a sender and a receiver); wherein a first container comprises at least one

first data packet (col. 7, lines 33-34; where Malkamaki discloses data block with number n), (i.e., MAC data block); wherein a second container comprises at least one second data packet and no first data packet (col. 7, lines 33-34; where Malkamaki discloses data block with number n+32).

Malkamaki does not explicitly disclose the first container is provided with a first error coding; wherein the second container is provided with a second error coding; and wherein the first error coding is stronger than the second error coding.

However, in the same field of endeavor, Ramanujam discloses a concatenated forward error correction decoder wherein a first container (i.e., first frame of first blocks) is provided with a first error coding and a second container (i.e., second frame of second blocks) is provided with a second error coding (fig. 5; col. 6, lines 36-49); and wherein the first error coding is stronger than the second error coding (col. 7 lines 38-40).

Therefore, it would have been obvious to a person of ordinary skill in the art, at the time of the invention to modify Malkamaki with the teachings of Ramanujam. Doing so would increase coding gains in a long-haul communications system using concatenated error-correcting codes in conjunction with a three level decoder (col. 2, lines 35-36-40).

As to claim 12, Malkamaki discloses a receiving station for receiving data blocks (i.e., data packets which include first data packets and second data packets) from the transmitting station (sending terminal 11) to a receiving station (receiving terminal 12; abstract), wherein the first data packets comprise first data (col. 7, lines 33-34; where Malkamaki discloses data block with number n), in particular control instructions (according to Mulkamaki, data blocks are communicated according to media access control layer 11b); wherein the second data packets

comprise second data (col. 7, lines 33-34; where Malkamaki discloses data block with number n+32); wherein the first data packets and the second data packets are transmitted from the transmitting station to the receiving station in containers (col. 5 lines 12-18, lines 64 through col. 6 line 2; where Malkamaki discloses that after encapsulating the packets in MAC data blocks, a respective sequence number is assigned to the data blocks and Fig. 1 block 11 and 12, where Malkamaki discloses a sender and a receiver); wherein a first container comprises at least one first data packet (col. 7, lines 33-34; where Malkamaki discloses data block with number n), (i.e., MAC data block); wherein a second container comprises at least one second data packet and no first data packet (col. 7, lines 33-34; where Malkamaki discloses data block with number n+32).

Malkamaki does not explicitly disclose the first container is provided with a first error coding; wherein the second container is provided with a second error coding; and wherein the first error coding is stronger than the second error coding.

However, in the same field of endeavor, Ramanujam discloses a concatenated forward error correction decoder wherein a first container (i.e., first frame of first blocks) is provided with a first error coding and a second container (i.e., second frame of second blocks) is provided with a second error coding (fig. 5; col. 6, lines 36-49); and wherein the first error coding is stronger than the second error coding (col. 7 lines 38-40).

Therefore, it would have been obvious to a person of ordinary skill in the art, at the time of the invention to modify Malkamaki with the teachings of Ramanujam. Doing so would increase coding gains in a long-haul communications system using concatenated error-correcting codes in conjunction with a three level decoder (col. 2, lines 35-36-40).

As to claim 13, Malkamaki discloses a software program product (according to Mulkamani data blocks are communicated according to a protocol such as WCDMA, it is understood by one of ordinary skill in the art that WCDMA (wideband code division multiple access) as disclosed require software instructions to function) for performing a transmission of data blocks (corresponding to data packets which include first data packets and second data packets) from the transmitting station (sending terminal 11) to a receiving station (receiving terminal 12; see abstract), wherein the first data packets comprise first data (col. 7, lines 33-34; where Malkamaki discloses data block with number n), in particular control instructions (according to Mulkamaki, data blocks are communicated according to media access control layer 11b); wherein the second data packets comprise second data (col. 7, lines 33-34; where Malkamaki discloses data block with number n+32); wherein the first data packets and the second data packets are transmitted from the transmitting station to the receiving station, in containers (col. 5 lines 12-18, lines 64 through col. 6 line 2; where Malkamaki discloses that after encapsulating the packets in MAC data blocks, a respective sequence number is assigned to the data blocks and Fig. 1 block 11 and 12, where Malkamaki discloses a sender and a receiver); wherein a first container comprises at least one first data packet (col. 7, lines 33-34; where Malkamaki discloses data block with number n), (i.e., MAC data block); wherein a second container comprises at least one second data packet and no first data packet (col. 7, lines 33-34; where Malkamaki discloses data block with number n+32).

Malkamaki does not explicitly disclose the first container is provided with a first error coding; wherein the second container is provided with a second error coding; and wherein the first error coding is stronger than the second error coding.

However, in the same field of endeavor, Ramanujam discloses a concatenated forward error correction decoder wherein a first container (i.e., first frame of first blocks) is provided with a first error coding and a second container (i.e., second frame of second blocks) is provided with a second error coding (fig. 5; col. 6, lines 36-49); and wherein the first error coding is stronger than the second error coding (col. 7 lines 38-40).

Therefore, it would have been obvious to a person of ordinary skill in the art, at the time of the invention to modify Malkamaki with the teachings of Ramanujam. Doing so would increase coding gains in a long-haul communications system using concatenated error-correcting codes in conjunction with a three level decoder (col. 2, lines 35-36-40).

14. Claims 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Malkamaki (U.S. Pat. No. 7,310,336) in view of Ramanujam (U.S. Pat. No. 6,622,277) as applied to claim 1 above, and further in view of Kim (US Pub. No. 20030031119 A1).

As to claims 7-8, Malkamaki and of Ramanujam do not teach a method is applied for data transmission over the High Speed Downlink Shared Channel in UMTS; and, wherein the first data packets are RLC Control PDUs (see paragraph 0005, 0010); and herein the second data packets are RLC Data PDUs. However, the limitations are obvious and well known in the art, as evidenced by Kim (see paragraph (0071, 0075).

Therefore, it would have been obvious to a person of ordinary skill in the art, at the time of the invention to modify Malkamaki with the teachings of Kim. Doing so would provide a system for transmitting data using transmission resources efficiently; that would improve the integrity, availability and accuracy of the system.

Allowable Subject Matter

15. Claims 2, 3 and 9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim 2, contains allowable subject matter because none of the cited references either singular or in combination discloses, "Wherein the number of first and second data packets in the first container is smaller than the number of second data packets in the second container such that a first data payload transmitted in the first container is lower than a second data payload transmitted in the second container."

Claim 3, contains allowable subject matter because none of the cited references either singular or in combination discloses the limitations, "Wherein a first retransmission protocol controls a transmission and retransmission of a third data packet of the first and second data packets; wherein a second retransmission protocol controls a transmission and retransmission of the first and the second containers; wherein the first container and the second container are provided with a corresponding container sequence number; wherein each data packet of the second data packets is provided with a corresponding data packet sequence number; and wherein a first order of the first and second data packets which results when the first and second data packets are sent in first and second containers remains unchanged compared with a second order of the first and second data packets with which the first and second data packets are received by the second retransmission protocol."

Claim 9, contains allowable subject matter because none of the cited references either singular or in combination teaches the limitations, "Wherein a first peer entity of two peer

entities of the first retransmission protocol is adapted to initiate a reset of both peer entities, which reset is done by means of a first and second reset message included in the first data packets, which reset causes the first entity to send a first reset message to the second entity, and the second entity to send a second reset message to the first entity in reply to the first reset message, which first reset message sets the lower edge of the receiving window of the second entity equal to the lower edge of the transmission window of the first entity, which lower edge was used before the reset, which second reset message sets the lower edge of the receiving window of the first entity equal to the lower edge of the transmitting window of the second entity, which lower edge was used before the receipt of the ftrst reset message."

Conclusion

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO-892.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fritz Alphonse, whose telephone number is (571) 272-3813. The examiner can normally be reached on M-F, 8:30-6:00, Alt. Mondays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Scott Baderman, can be reached at (571) 272-3644.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (571) 272-3824

Information regarding the status of an application may also be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/FA/

Examiner, Art Unit 2112

March 10, 2009